

## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT PCT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 60469-101	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/10362	International filing date (day/month/year) 04 April 2003 (04.04.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC IPC(7): B65G 15/00; B66B 23/12; B65B 9/12 and US Cl.: 198/324, 323; 362/145, 253		
Applicant OTIS ELEVATOR COMPANY		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 06 July 2004 (06.07.2004)	Date of completion of this report 24 May 2005 (24.05.2005)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Sandra L. O'Shea <i>Sandra L. O'Shea</i> Telephone No. (571) 272-1550

Form PCT/IPEA/409 (cover sheet)(July 1998)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/10362

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed.
- ☒ the description:  
pages 1-7 \_\_\_\_\_ as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
pages NONE \_\_\_\_\_, as originally filed  
pages 8-11 \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
pages 1-2 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
pages NONE \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US03/10362

## V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. STATEMENT

Novelty (N)	Claims <u>1-22</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-22</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-22</u>	YES
	Claims <u>NONE</u>	NO

### 2. CITATIONS AND EXPLANATIONS

Claims 1-22 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a display device near one end of a passenger conveyor to provide a visible indication.

Claims 1-22 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.

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CLAIMS

We claim:

1. A device for use with a passenger conveyor (20), comprising:  
a display (40) that provides a visible indication of a direction of movement of the conveyor (20) and a variable, visible indication of maintenance information regarding the conveyor (20).
2. The device of claim 1, wherein the display (40) operates in a first mode to provide the direction indication and a second mode to provide the maintenance information.
3. The device of claim 1, wherein the display (40) includes a first display panel (42) that provides at least the direction indication and a second display panel (42) that provides at least some of the maintenance information.
4. The device of claim 3, including a support (38) and wherein the display panels (42, 48) are supported for movement relative to the support (38) between a first position where the first panel (42) is visible and a second position where the second panel (48) is visible.
5. The device of claim 4, wherein the display panels (42, 48) are on opposite sides of a plate portion (43) and the plate portion (43) is pivotally movable relative to the support (38).
6. The device of claim 5, including a recess (44) on the support (38) and wherein the plate portion (43) is at least partially received in the recess (44) in the first position.
7. The device of claim 6, wherein the support (30) is adapted to be placed between a handrail (28) and a landing (24) near an end of the conveyor (20) and the recess (44) is on a surface of the support (30) that is at least partially at an oblique angle relative to the landing (24).

8. The device of claim 3, including at least one switch (52, 54) supported near the second display panel (48), the switch (52, 54) being actuatable to selectively view available maintenance information.

9. The device of claim 1, including a transmitter (62) remote from the display (40) and wherein the transmitter (62) provides a wirelessly communicated signal that controls the display (40).

10. The device of claim 1, including a controller (50) that controls the display (40) and wherein the controller (50) automatically sets the indication to correspond to a direction of movement of the conveyor (20) or the maintenance information.

11. The device of claim 10, wherein the controller (50) uses information regarding an operation of a machine (51) of the conveyor (20) to determine the corresponding indication.

12. The device of claim 1, wherein the display (40) provides the visible indication of maintenance information including at least one of a fault code indicator, operation time information, energy consumption information or maintenance history information.

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13. A passenger conveyor (20), comprising:  
a plurality of steps (22) that are moveable along a selected path between two landings (24, 26);  
a machine (51) that selectively moves the steps (22); and  
a display (40) near one end of the conveyor (20) that provides a visible indication of a direction of movement of the conveyor (20) and a variable, visible indication of maintenance information regarding the conveyor (20).
14. The passenger conveyor (20) of claim 13, wherein the display (40) operates in a first mode to provide the direction indication and a second mode to provide the maintenance information.
15. The passenger conveyor (20) of claim 14, including a controller (50) that controls the mode of operation of the display (40) and wherein the controller (50) uses at least information regarding the operation of the machine (51) to determine the corresponding indication on the display (40).
16. The passenger conveyor (20) of claim 13, wherein the display (40) includes a first display panel (42) that provides at least the direction indication and a second display panel (48) that provides at least some of the maintenance information.
17. The passenger conveyor (20) of claim 16, including a support (38) and a plate portion (43) that is moveably supported by the support (38) and wherein the display panels (42, 48) are on opposite sides of the plate portion (43).
18. The passenger conveyor (20) of claim 17, including a recess (44) on the support (38) and wherein the plate portion (43) is at least partially received in the recess (44) when the first panel (42) is visible.
19. The passenger conveyor (20) of claim 18, wherein the recess (44) is on a surface of the support (38) that is at least partially at an oblique angle relative to one of the landings (24).

20. The passenger conveyor (20) of claim 13, including at least one switch (52, 54) supported near the display (40), the switch (52, 54) being actuatable to selectively view available indications on the display (40).

21. The passenger conveyor (20) of claim 13, including a transmitter (60) remote from the display (40) and wherein the transmitter (60) provides a wirelessly communicated signal that controls the display (40).

22. The passenger conveyor (20) of claim 13, wherein the display (40) provides the visible indication of maintenance information including at least one of a fault code indicator, operation time information, energy consumption information, or maintenance history information.

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